Government and Medicine

Rehabilitation

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GOVERNMENT, AS IT relates to the delivery of health care services, has had as much influence in the field of human rehabilitation as in acute care, the prime reason being the economic factors inherent in human disability.

The cost of rehabilitation services, accompanied by the simultaneous loss of the disabled person's earning power, puts these services beyond the resources of most persons.

The lack of personal resources to purchase rehabilitation services from the private sector of health care has resulted in a slack demand for such services. Hence rehabilitation personnel and rehabilitation facilities have not been developed in the private sector. This brought the government into the field to stimulate development and partially to fill the need.

This article will attempt to cite the relations between government and medicine in rehabilitation by describing rehabilitation, its needs, the economic forces involved and the impact government has had on the efforts to provide it.

What is Rehabilitation?

In its broadest sense, the term *rehabilitation*—"to restore to its former state,"—could be applied to a wide range of problems from health to social to industrial. As applied to the health field, it could be used to mean restoration of health when health has been lost. This would encompass nearly the whole of health care. However, common usage has implied the limitation of meaning primarily to the area of evident physical disability which is of long duration or at least potentially so, resulting in a significant loss of function by the individual involved. Examples are trunk or extremity paralysis or damage or loss, so as to interfere significantly with self-care, mobility or job performance. Disability of any of the major organ systems will likewise interfere with a person's ability to function—for example, pulmonary or cardiac disability, loss of sight, hearing, or speech. Usage has also included vocational training or retraining and employment assistance as a part of the rehabilitation process.

Place in Medical Care

Rusk[1] has called rehabilitation the third phase of medical care. The logic of this requires labeling the other two phases as prevention and therapy. It also implies that rehabilitation is something other than therapeutic. It certainly is a definitive form of therapy and could, therefore, be labeled therapeutic; however, because medical education and the delivery of medical services have focussed primarily on the acute and episodic aspects of disease and disability, the health services have not provided significant restorative resources to those persons with residual incapacitating disabilities. The use of the concept or label of rehabilitation as the third phase of medicine is more to highlight the need to develop rehabilitation resources and to provide rehabilitation service than to imply that it is not a part of definitive therapy.

Historical Background

Historically, the patient's personal physician provided for the total spectrum of his health care

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needs, including rehabilitation, to the best of his ability. It was not identified as any particular phase of medical care; the physician did not have specialists, special allied health personnel, special devices or facilities, or agencies to refer the patient to. The total health service available to the patient was supplied by his physician to the best of that physician's knowledge and skills and by the health facilities and staffs available to that physician. As medical knowledge and new techniques multiplied at an unparalleled and ever-increasing rate, several things happened to decrease the personal physician's ability to provide all the health care needs of his patients. Specialization and subspecialization into narrower limits and fields occurred. New classes of allied health personnel began to appear, such as physical and occupational therapists, clinical psychologists, and vocational and employment counselors. The physician was neither trained nor experienced in the use of these allied health persons. Hence, he could not appreciate their services nor find the means to use them. They did not become a significant part of his therapeutic regimen in caring for his patients with residual and severe disabilities.

Hospital facilities simultaneously became better organized to provide intensified care for acute and episodic illnesses. The average length of stay decreased to approximately one week. Fast turnover was encouraged to improve efficiency and to reduce the cost of hospitalization. The delivery of health care became focused on the physician's office and the community hospital where he had staff privileges. The acute and episodic illnesses received excellent service; however, patients whose illness left them with an incapacitating disability found few opportunities for restorative care. Their physician was neither skilled nor experienced in providing rehabilitation services nor in using rehabilitation personnel to assist him. The hospital was not prepared to serve a patient needing six or more weeks of intensified care and did not have the rehabilitation facilities for restorative procedures. For the patient unable to take care of himself or to return to his former job, one of several alternatives occurred: He stayed unduly long in the acute hospital at great cost and little therapeutic benefit, he went home where family or friends took care of his daily needs, or he went to a chronic disease facility or nursing home for maintenance care for an indefinite period.

At this point of the historical background, it should be noted that these alternatives were not necessarily bad nor inappropriate for many of the patients. Experience to date and in restrospect reveals that somewhere between 25 and 35 percent of the patients severely disabled would benefit significantly from rehabilitation. This means that the remainder would not benefit, that we do not as yet have appropriate therapeutic means, and that maintenance care is all we have to offer. But the number that would benefit is significant and highlights the tragedy which results when disabled persons are unnecessarily set aside from a functional and productive life.

Historically there are essentially two identifiable situations which, working in parallel, brought the concept of rehabilitation to the health profession, to the public and to those involved in the organizational concepts of the delivery of health care services.

During World War II, the armed services became acutely aware that the policy of military personnel being either on full duty or in a hospital did not properly recognize the existence of an in-between convalescent group. They jammed the hospital facilities inappropriately and did not receive restorative services designed to return them to full duty. Rusk[1] recognized the problem within the Air Force medical facilities. He was able to organize and develop rehabilitation and convalescent facilities and programs which provided appropriate restorative care to these military personnel. The lesson and examples were not forgotten when the war ended. Dr. Rusk became a leading spokesman and developer of rehabilitation programs in civilian educational and health facilities with his base established at the New York Institute for Rehabilitation Medicine in New York City where it was affiliated with New York University.

At this same time, epidemics of poliomyelitis began increasing in frequency and severity in this country. Improved acute care lowered the mortality rate but left large numbers of children and young adults with severe residual paralytic disabilities. Landauer,[2] a pediatrician and rehabilitation expert who was assistant medical director for the National Foundation for Infantile Paralysis, established a series of regional respiratory and rehabilitation centers to provide expert and advanced rehabilitation services. The National Foundation also became the prime stimulator and financial supporter of training and development of the physical and occupational therapists, as well as other

professional members of the rehabilitation team.

The health profession and organizations dealing with these two situations became the key developers and organizers of rehabilitation concepts, programs and facilities as we know them today.

Reasons for Government Action

Economic Aspect

Incapacitating disabilities have a profound economic effect upon the individual and his family. They create unusually high medical costs because of the intensity and long duration of medical care required. They simultaneously destroy the person's ability to create income. Very few persons have sufficient resources to meet this double economic force. The daily hospital cost of rehabilitation services is equal to that of acute hospital care but is much longer; therefore, the total cost is greater. The average acute illness hospitalization period is around one week, whereas the average rehabilitation hospitalization program is six weeks or more, some running to six months or more. Health insurance coverage for rehabilitation services has been very spotty and essentially negligible (until quite recently when changes in contracts have begun to provide benefits for rehabilitation care). The net result has been the inability of patients to pay for rehabilitation service, which in turn meant they could not go to a private hospital; therefore, the private hospitals did not have the demand to develop or provide such service, leaving the government the only significant resource.

Government Effect on Rehabilitation

The effect of government on rehabilitation has come from all three levels—federal, state, and local. The federal government provided funds for development of programs, for support of services, for construction of facilities, for training of manpower, and for research. State government provided payment for services and established standards, and local government provided mainly services. These three levels of effect will be described in detail.

Vocational Rehabilitation

The vocational rehabilitation program for civilians was established on a national scale in 1920 under the jurisdiction of the Vocational Rehabilitation Administration. It involved the provision of rather limited services by designated state agencies, operating with federal help, to adjust physically disabled persons to work. Medical and restorative services were introduced for the first time by federal legislation in 1943, which provided federal financial participation in meeting their costs. The same law also widened the scope of the rehabilitation effort by making mental disabilities a basis for services.

In 1954 Public Law 565 gave the program new impetus by enlarging incentives to reach toward new goals. Federal grants to states for support of basic rehabilitation activities increased from $24,000,000 in 1955 to $71,000,000 in 1963, and the amounts appropriated for state legislatures for their basic rehabilitation services tripled in the aggregate. Significantly, the 1954 legislation added research and training activities to the program.

Simultaneous with the impact of government on services by the reimbursement technique was the provision of construction funds. Funds for construction of in-patient rehabilitation facilities have been primarily from two sources: (1) community fund raising, and (2) government, including federal, state and local. The government source has clearly predominated. The mechanism has been through the 1954 amendments to the Hospital Reconstruction Act (Hill-Burton or Hill-Harris). This provided appropriations on a matching basis of approximately one-third each from the federal and state governments and one-third from local sources, either private or governmental. It further stated that a certain portion of the total funds allocated to the state (based on population criteria) were to be for rehabilitation facilities. To my knowledge, there have been few if any rehabilitation facilities built in California within the past 20 years which did not obtain the major portion of their funds from tax sources. It should be noted here that reference is made only to those facilities which are or could be certified by the state under the criteria established and previously mentioned. There are facilities—principally convalescent, extended care or nursing homes—which may incorporate the term *Rehabilitation* into their names or as listed services but which do not provide services of the type or quality which would qualify for certification.

The few rehabilitation facilities which are outpatient only have not been included in this discussion because most rehabilitation facilities offer both in-patient and out-patient services.

Since those amendment changes occurred and

up to the present date, there has been a total of $8,500,000 from the state and $8,900,000 from the federal government allocated for rehabilitation facility construction in California. These funds went to a total of 25 rehabilitation facilities, of which 18 were private and six were public. These 25 facilities represented a total of 340 beds with 144 private and 196 public. The distribution of funds was 75 percent to the private and 25 percent to the public sectors. Comparing the dollar distribution with facility and bed distribution between public and private would appear to create questions of cost usage. However, the figures are misleading in this sense because the type of facility and program, rather than numbers of beds, determines cost. For example, bed numbers bear little relationship to size of ambulatory facilities attached or free standing.

Another point should be noted when using these figures: There is no universally accepted definition of rehabilitation and no such licensing category, only the certification procedure to be mentioned later. A rehabilitation facility might have 100 rehabilitation beds but request certification of only 50 for purposes of reimbursement. A facility might apply for Hill-Burton funds under the "long-term" category even though it is being designed and intended for rehabilitation purposes. It is well known that a number of such instances, representing several hundred beds, have occurred in California. The only problem this creates is a greater investment of local funds beyond the required matching amount because of the greater construction costs inherent in rehabilitation facilities as compared with "long-term" facilities. These points are merely to emphasize the fact that any published figures on the number of rehabilitation beds in the state and data on federal and state allocations for construction of these beds are less than actuality.

In addition to the impetus in rehabilitation construction by the government, the Hill-Burton allocation procedure set up construction criteria for rehabilitation facilities which served to insure design of facilities capable of providing a high level of comprehensive rehabilitation service. For a construction application to qualify, there were certain minimal services required, such as medical, social, psychological, and vocational. Formulas for minimal square feet per bed and for physical and occupational therapy treatment areas, as well as many other functional details, were also required. By these mechanisms, reasonably high standards of design and planned functional programs were established to the benefit of the patient who would be receiving service in these facilities.

The application and appropriation procedure also included geographic area priority determinations which served to prevent duplication and to assist in establishment of facilities in areas of need.

Government as a Rehabilitation Service Resource

Initially the government provided rehabilitation services through public hospitals. In California this meant the county and veterans hospitals. These sources were considerably ahead of most governmental units in the country, with the exception of New York and a handful of local units in other states. These county rehabilitation facilities evolved after World War II, gradually emerging during the 50's. If we consider these county and Veterans Administration rehabilitation facilities as the first major impact of government on rehabilitation services in California, then the next or second major impact occurred in 1961. The state government, through the Public Assistance Medical Care Program (PAMC), developed a means of paying for rehabilitation services to recipients of Old Age Security and to persons designated as totally disabled (ATD) who were in need of such services. This involved the reimbursement of cost for rehabilitation services provided by a rehabilitation facility recognized by the state as being competent to render adequate rehabilitation service. Recognition of these facilities involved joint and cooperative action by the state departments of Public Health and Social Welfare in developing definitions, criteria and standards for rehabilitation facilities, services and personnel that would have to be met as a requisite to certification of a rehabilitation facility. Eligibility for reimbursement for services required this certification. These standards in themselves represented a significant impact of government on medicine, for establishing them was one of the few instances in which government (up to that time) had evolved standards involving quality of health service and personnel, rather than facility licensing alone.

The effect of government reimbursement for rehabilitation services in a certified facility, whether public or private, took several forms. The published criteria for certification established relatively high standards for rehabilitation facilities and, in fact, became the first such standards available.

TABLE 1.—*Rehabilitation Bed and Facility Growth in California*

	Rehabilitation Facilities			Rehabilitation Beds		
	Total Number	Private	Public	Total Number	Private	Public
1960	13	6 (46%)	7 (54%)	320	100 (31%)	220 (69%)
1962	17	8 (47%)	9 (53%)	490	164 (33%)	326 (67%)
1968	37	18 (49%)	19 (51%)	1839	542 (30%)	1297 (70%)

This raised the quality of services in borderline facilities which attained certification and established an adequate baseline level of quality. Another effect was the stimulus to increase the availability of service by increasing the number of facilities, number of beds and the number of trained rehabilitation personnel in all fields.

The third major effect that government participation had on services occurred in 1966 when Medicare and Medi-Cal became effective. Benefits under these plans included reimbursement for rehabilitation services. This replaced the PAMC coverage and extended it to many more persons. The standards for participation were quite simialr to those that had been established by the state under PAMC.

As the state and federal governments developed means for reimbursement for rehabilitation services, so did the health insurance industry. Although the industry has been much slower than the government and has been much more restrictive in its willingness to reimburse for rehabilitation service, nevertheless it has been moving. It would appear to be fair to say that the initiative of government in this field has had an influence upon the health insurance industry to the benefit of the patient needing rehabilitation services, whether he receives it in public or private facilities.

Evidence of the effect that state reimbursement (first under PAMC and then through extension through Medicare and Medi-Cal, along with the Hospital Reconstruction Act amendments of 1954) can be seen in Table 1. The table shows the number of rehabilitation facilities and beds distributed between public and private facilities which meet the criteria of certification referred to above. The numbers are compared, using three definable time points of government impact; namely, the 1960 (pre-PAMC coverage), 1962 (PAMC coverage), and 1968 (Medicare and Medi-Cal coverage). The number of rehabilitation facilities has almost tripled in the state, from 13 to 37. The number of beds has increased almost six fold, from 320 to 1,839. It is interesting to note that the distribution between numbers of public and private facilities (approximately 50-50) and numbers of beds (approximately 3:1) has not changed significantly. Only the numbers have increased, and on an equally proportional basis.

Rehabilitation Manpower

Physicians

As was mentioned earlier, in discussion of the historical background of rehabilitation, the patient's personal physician was the prime source of rehabilitative care, even though it was not identified as such but merely considered a part of his medical care process. The family physician and various specialties, such as the orthopedist, pediatrician, surgeon and internist provided medical restorative services to the disabled as a part of their routine. However, as the rehabilitation concept began to emerge as a special phase of medical care, specialty emphasis was given to it.

One of the results was the development of the specialty of Physical Medicine and Rehabilitation. This emerged from the specialty of physical medicine where the physicians dealt primarily with physical means of therapy such as diathermy, heat and cold, massage and the like. At first the practitioners of this specialty focussed mainly on neuromuscular disorders and non-surgical orthopedics. They knew how to make use of physical and occupational therapists and other allied health professionals who function in the rehabilitation setting. As they became experts in the field, they enlarged the scope of disabilities they dealt with, adding cardiac, pulmonary, neurologic, and pediatric disabilities — in fact, any disability to which the process of rehabilitation could be applied.

This created the potential for specialty jurisdictional disputes in certain instances, which is typical of any emerging specialty. Historically such disputes gradually diminish or disappear as the specialty establishes its base, its area of competence and the need for its services. It would appear that we have now reached this point with regard to rehabilitation. In addition, it is encouraging to note that the other specialties are rapidly becoming

aware of the need to provide rehabilitation services to their patients and are recognizing that they have special skills within their specialty to bring to the process. This broadening of specialty interest is a major advance in rehabilitation service.

Allied Health Personnel

The use of allied health personnel is probably more advanced in the rehabilitation effort than in most areas of medical practice. Nursing is well along the path of producing rehabilitation nursing specialists, with skills in bowel and bladder training and the teaching of daily personal maintenance. Physical and occupational therapists provide the basic techniques in muscle strengthening, ambulation, weight transfer, activities of daily living, and extremity dexterity and function. They train patients in the use of mechanical assistive devices which substitute for hand and finger function, as well as other extremity functions.

The clinical psychologists are able to determine the presence and extent of brain and intellectual damage and residual functions. They measure and analyze the emotional reactions of the patients to their disabilities and environment and help carry them through periods of depression and back into a motivational phase. The medical social worker determines the extent of social and economic impact upon the patient and his family and mobilizes resources to carry them through the economic crisis common to these severe and prolonged periods of great expense and loss of earning power. The orthotist and prosthetist design, develop and produce mechanical assistive devices for the various lost extremity functions. These devices range from splints and braces to externally powered prosthesis which can nearly replace total extremity activity, including hand function. The vocational counselor tests remaining functional skills and assists in establishing new job goals and training to achieve them.

Putting all of these allied health professionals together into a common effort under the direction of the physician to assist the patient to recover some or all of his lost functions becomes a major team effort. The use of the concept and term "team" has been greatly overworked, almost to the point of cliché. Yet it remains a group effort for best results. These allied health professionals become much more skilled in the application of their techniques than the physician directing them. They stretch his availability and produce better results. The physician's part here is that of final authority in determining the ultimate objective and goal, the physiological limits of the patient, and the priority of the various parts of the program to achieve the patient's rehabilitation goal in the shortest possible time within the safety limits of that individual.

Funds for training these personnel have come mainly from the federal government through the Department of Social and Rehabilitation Services (formerly known as the Vocational Rehabilitation Administration) under the direction of Miss Mary Switzer. Some of these funds come directly from the federal agency to the recipient through the competitive grant mechanism, and others come through the California State Department of Rehabilitation where state matching funds are added. This agency has been the prime stimulant for the development of medical school departments of physical medicine and rehabilitation by providing developmental and support grants for creation, expansion, and maintenance of these departments. In 1963, sixty-one medical schools received financial support for undergraduate training in rehabilitation medicine. They have provided training fellowships to produce specialists and funds to provide for teaching of rehabilitation in medical curricula. In fact, in 1963, this agency (SRS) spent $13,000,000 in training rehabilitation personnel of all categories.

Research

Efforts to improve our knowledge of problems related to disability and to develop devices and techniques for restoration of function have been made by the support of research in rehabilitation. The prime mover in this area has been the Social and Rehabilitation Services Administration. As previously mentioned, federal legislation in 1954 added research activities to the responsibilities of this agency. An example of growth in research funds for rehabilitation is to note that from the small start in 1954 in accord with legislation, the agency spent $10,500,000 on research in 1963.

Not all the credit for support of research in this field can be given to the federal government or even to one agency, although it has certainly been the dominant force. Other agencies of the government have been involved, such as the National Institutes of Health and its parent agency, the U.S. Public Health Service. Voluntary health organizations have had a very active role in research and development in rehabilitation, such as the National

Foundation, the Heart Associations, and the Arthritis Foundation, among many. In fact, these organizations were actively engaged in support of research and development in the field of rehabilitation before the government.

Research and Training Centers

In 1961 federal legislation authorized the establishment of Rehabilitation Research and Training Centers based at universities and located on a regional basis. To date, 20 such centers have been established. Four categories of such centers have emerged; they deal with medical problems, vocational, mental retardation, and deafness. One of these is in California, a Medical Research and Training Center located at the University of Southern California School of Medicine. In addition to these centers and in a different funding category is a Spinal Cord Injury Center funded in part by the Social and Rehabilitation Services Administration, which is located at Rancho Los Amigos Hospital in Downey, California. This center is regional in nature, serving California, Nevada and Arizona.

Application to Welfare Concepts

An interesting and potentially significant event occurred in the federal government a little over a year ago which bears some relationship to this subject of government and medicine.

All concerned with the problem are fully cognizant of the increasing generalized concern over the growth of welfare costs, programs, and philosophy. The Johnson Administration sensed this and struggled with it. Evidence of such concern appeared during the reorganization of the Department of Health, Education, and Welfare under the leadership of the then Secretary, John Gardner. The Welfare Agency was placed under Miss Mary Switzer, who was then the Commissioner of the Office of Vocational Rehabilitation. This reorganization resulted in the new agency named Social and Rehabilitation Services. MedicAid, as a welfare function, was placed in the SRS agency. But the most significant part of this event was the philosophy expressed in the reorganization—namely, to apply the concepts of rehabilitation to welfare. This means to shift the emphasis from "dole" to "restoration." The implementation will be difficult and cumbersome, and it will require a long time. It may not succeed. But, the intent is encouraging and the ramifications are of great magnitude.

In conclusion, this is a summary of government's influence on rehabilitation:

- Provision of rehabilitation services in public hospitals.
- Payment for rehabilitation services in qualified rehabilitation facilities.
- Establishment of standards for certification of rehabilitation facilities.
- Construction funds for rehabilitation facilities.
- Establishment of regional rehabilitation centers.
- Educational funds for development of rehabilitation manpower, including physicians, nurses, and a broad spectrum of allied health personnel.
- Stimulation and support of research in the field.
- Application of the rehabilitation concept and approach to welfare.
- Establishment of vocational training facilities, programs, and payment for services.

This listing is incomplete and sketchy. Yet, it provides a good look at the effect that government, at all levels, has had on medicine in the field of rehabilitation. In dollars spent, numbers of facilities and beds constructed, and volume of research, the impact is certainly less than in other areas of medicine. However, taking into account the size of rehabilitation services in relation to medical services as a whole, it can be seen that the government's push in this area has been specialized and unique and has had a proportionately greater impact than the public or those in the health professions have generally been aware of.

REFERENCES

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